DOCKET NO.: CELL-0304
 Application No.: 10/561,051

Preliminary Amendment - First Action Not Yet Received

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (currently amended) A compound of formula (2):

wherein

R is a -CN, -NO₂, -CO₂Alk², -COC₁₋₆alkyl or -CONHet² group;

Alk² is an optionally substituted alkyl, arylalkyl arylalkyl, aryl, aryloxyalkyl aryloxyalkyl alkanoyloxyalkyl or aroyloxyalkyl aroyloxyalkyl group;

NHet² is an optionally substituted 4- to 6-membered heterocycloalkyl group attached through a nitrogen atom to the group -CO;

R¹ is an optionally substituted aryl, heteroaryl, cycloalkyl or heterocycloalkyl group; and

each R^y, which may be the same or different, is each a hydrogen atom or a hydrogen atom precursor;

and the salts, solvates, hydrates, protected derivatives and N oxides thereof or a salt, solvate, hydrate, protected derivative, or N-oxide thereof.

- 2. (original) A compound according to Claim 1 in which R¹ is an optionally substituted phenyl, pyridyl, pyrimidinyl, pyridazinyl, pyrazinyl, thienyl, indolyl, cyclopropyl, cyclobutyl, cyclopentyl or cyclohexyl group.
- 3. (original) A compound according to Claim 2 wherein R¹ is an optionally substituted phenyl or cyclopropyl group.
- 4. (currently amended) A compound according to any one of Claims 1 to 3, Claim 1 in which each R^y is a hydrogen atom.

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5. (currently amended) A compound according to any one of Claims 1 to 4, Claim 1 in which Alk^2 is a C_{1-6} alkyl group.

- 6. (currently amended) A compound according to any one of Claims 1 to 4, Claim 1 wherein R is a -CN, -CO₂CH₃, -CO₂CH₂CH₃, -COCH₃ or -CONHet² group.
- 7. (canceled)
- 8. (currently amended) A process for the manufacture of a halide of formula (1):

wherein R, R⁺-and R^y-are as defined in Claim 1

R is a -CN, -NO₂, -CO₂Alk², -COC₁₋₆alkyl or -CONHet² group;

Alk² is an optionally substituted alkyl, arylalkyl, arylalkyl, arylakyl, alkanoyloxyalkyl or aroyloxyalkyl group;

NHet² is an optionally substituted 4- to 6-membered heterocycloalkyl group attached through a nitrogen atom to the group -CO;

R¹ is an optionally substituted aryl, heteroaryl, cycloalkyl or heterocycloalkyl group; each R^y, which may be the same or different, is a hydrogen atom or a hydrogen atom precursor; and

T is as defined in Claim 7 a halogen atom; which comprises diazotization of a compound of formula (2): as defined in Claim 1,

$$\begin{array}{c|c}
R^{y} & NH_{2} \\
\hline
N & S
\end{array}$$
(2)

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followed by halide displacement.

- 9. (original) A process according to Claim 8 wherein the reaction is carried out in the presence of an alkyl nitrite or a metal nitrite in the presence of an acid, followed by addition of a copper salt, in the presence of a solvent.
- 10. (currently amended) A process for the manufacture of a compound of formula (1A):

$$R^{y}$$
 $N(H)Ar$
 R^{y}
 $R^{$

wherein R, R⁺ and R^y are as defined in Claim 1

R is a -CN, -NO₂, -CO₂Alk², -COC₁₋₆alkyl or -CONHet² group;

Alk² is an optionally substituted alkyl, arylalkyl, arylakyl, aryloxyalkyl, alkanoyloxyalkyl or aroyloxyalkyl group;

NHet² is an optionally substituted 4- to 6-membered heterocycloalkyl group attached through a nitrogen atom to the group -CO;

R¹ is an optionally substituted aryl, heteroaryl, cycloalkyl or heterocycloalkyl group; each R^y, which may be the same or different, is a hydrogen atom or a hydrogen atom precursor; and

Ar is an optionally substituted aromatic or heteroaromatic group; which comprises reacting a compound of formula (2):, as defined in Claim 1,

$$\begin{array}{c|c}
R^{y} & NH_{2} \\
\hline
N & S
\end{array}$$
(2)

with a compound ArQ,

wherein Q is a leaving group, in the presence of a transition metal catalyst.

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11. (original) A process according to Claim 10 wherein the reaction is carried out in the presence of a solvent, using a palladium catalyst, a phosphine ligand and a base.

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- 12. (original) A process according to Claim 10 wherein the reaction is carried out in the presence of a copper catalyst.
- 13. (currently amended) A process for the manufacture of a compound of formula (2): 5, as defined in Claim 1,

$$\begin{array}{c|c}
R^{y} & NH_{2} \\
\hline
N & S
\end{array}$$
(2)

wherein

R is a -CN, -NO₂, -CO₂Alk², -COC₁₋₆alkyl or -CONHet² group;

Alk² is an optionally substituted alkyl, arylalkyl, aryl, aryloxyalkyl, alkanoyloxyalkyl or aroyloxyalkyl group;

NHet² is an optionally substituted 4- to 6-membered heterocycloalkyl group attached through a nitrogen atom to the group -CO;

R¹ is an optionally substituted aryl, heteroaryl, cycloalkyl or heterocycloalkyl group; each R^y, which may be the same or different, is a hydrogen atom or a hydrogen atom precursor;

which comprises the steps of:

a) reacting a compound of formula (2a) or (2b):

$$R^{y}$$
 R^{y}
 R^{y

wherein

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Ry is as defined in Claim 1,

R^c is an optionally substituted alkyl group, and

W is a hydrogen atom, a metal ion or an amine salt; with a compound of formula (3):

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wherein R⁺ is as defined in Claim 1:

b) followed by reaction with a compound of formula (5):

wherein R is as defined in Claim-1-and Z is a leaving group.

- 14. (original) The process according to Claim 13 wherein W is a metal ion.
- 15. (currently amended) The process according to Claim 13 or Claim-14 wherein step a) is performed in the presence of a base.
- 16. (currently amended) The process according to Claim 15 wherein the base is selected from a lithium base, a silazane, a carbonate, an alkoxide, a hydroxide, a hydride, an organic amine, or and a cyclic amine.
- 17. (currently amended) The process according to any one of Claims 13 to 16 Claim 13 wherein the reaction is carried out in an organic solvent.
- 18. (currently amended) The process according to Claim 17 wherein step a) and step b) is are each carried out in a an organic solvent, which may be the same or different in each step, selected from an amide, an ether, an alcohol or and acetonitrile.
- 19. (currently amended) The process according to any one of Claims 13 to 18 Claim 13 wherein an intermediate of formula (4) is isolated after step a):

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wherein R⁺ and R^y are as defined in Claim 1 and W is as defined in Claim 13.

20. (currently amended) A compound of formula (4):

wherein R¹ and R^y are as defined in Claim 1 and W is as defined in Claim 13

R¹ is an optionally substituted aryl, heteroaryl, cycloalkyl or heterocycloalkyl group;
each R^y, which may be the same or different, is a hydrogen atom or a hydrogen atom precursor; and

W is a hydrogen atom, a metal ion or an amine salt.

21. (currently amended) The process according to any one of Claims 13 to 19 Claim 13 wherein an intermediate of formula (6) is isolated during step b):

wherein R⁺, R and R^y are as defined in Claim 1.

22. (currently amended) A compound of formula (6):

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$$R^{y}$$
 CN
 R^{y}
 R^{y}

wherein R¹, R and R^y are as defined in Claim 1

R is a -CN, -NO₂, -CO₂Alk², -COC₁₋₆alkyl or -CONHet² group;

Alk² is an optionally substituted alkyl, arylalkyl, arylakyl, aryloxyalkyl, alkanoyloxyalkyl or aroyloxyalkyl group;

NHet² is an optionally substituted 4- to 6-membered heterocycloalkyl group attached through a nitrogen atom to the group -CO;

 \underline{R}^{1} is an optionally substituted aryl, heteroaryl, cycloalkyl or heterocycloalkyl group; and

each R^y, which may be the same or different, is a hydrogen atom or a hydrogen atom precursor.